

## AMENDMENTS TO THE SPECIFICATION

*Please delete the Abstract and replace it with the following rewritten Abstract:*

OK + 0  
Enter  
EXT SP  
2/22/07

An alignment measuring system includes a focusing diode, a light source, an image sensor, first and second splitters, ~~a focusing diode~~, and a controller. The first splitter directs a portion of light from the light source toward a wafer, and directs light returned by the wafer to the second splitter. The second splitter directs a first portion of the light toward the image sensor, and a second portion of the light toward the focusing diode, and control the ratio of the first and second portions in response to a control signal from the controller. The image sensor receives the first portion of light and produces a detection signal. The controller receives the detection signal, determines an alignment state of the wafer, and controls a stage to align and position the wafer.

*Please replace paragraph [00022] with the following amended paragraph:*

OK to  
Enter  
EXT SP  
2/22/07

[00022] To achieve these objects, an alignment measuring system of a photolithography process includes a focusing diode, a light source, an image sensor, first and second splitters, ~~a focusing diode~~, and a controller. The light source is adapted to emit light. The first splitter is adapted to direct a portion of the light emitted from the light source toward a wafer disposed on a stage, and to direct in a first direction a part of reflected light from the wafer. The second splitter is adapted to receive the part of the reflected light from the first splitter, to direct a first portion of the received light toward the image sensor, to direct a second portion of the received light toward the focusing diode, and to control levels of the first and second portions of the received light in response to an applied control signal. The image sensor is adapted to receive the first portion of the light from the second splitter and to produce a detection signal therefrom. The controller is adapted to receive the detection signal

from the image sensor to determine an alignment state of the wafer, to control the stage so as to align and position the wafer, and to apply the control signal to the second splitter.

*Please replace paragraph [00032] with the following amended paragraph:*

[00032] In that case, the alignment measuring system of FIG. [[1]] 2 operates as follows. The light source 14 produces light and directs the light toward the first splitter 16. The first splitter 16 is adapted to direct a first part of the light emitted from the light source 14 toward the wafer on the stage 10, and a second part of the light emitted from the light source 14 toward the reference mirror part 22. The wafer receives the light from the splitter 16, and reflects and/or diffracts at least a portion of that light back toward the first splitter 16. The first splitter 16 is adapted to direct the reflected and/or diffracted light from the wafer in a first direction (e.g., toward the second splitter 30). The second splitter 30 is adapted to receive the part of the reflected light from the first splitter. The second splitter 30 is also adapted to direct a first portion of the received light (i.e., reflected/diffracted light from the wafer) toward the image sensor 12, and a second portion of the received light toward the focusing diode 18. The image sensor 12 is adapted to receive the first portion of the light (i.e., reflected/diffracted light from the wafer) from the second splitter and to produce a detection signal therefrom.

*Please replace paragraph [00044] with the following amended paragraph:*

[00044] In one embodiment, each of the first and second splitters 16 and 30 comprises a transparent liquid crystal display (LCD) device. A control signal from the controller [[14]] 40 determines how much light is passed through each LCD by (e.g.) turning off the LCD to increase the percentage of light passing therethrough, or turning on the LCD to increase the percentage of light reflected therefrom.